

What is claimed are:

1. A constant speed running control apparatus for a vehicle, comprising:
an operating section that instructs a change of a target vehicle speed;
a vehicle speed detecting section that detects a vehicle speed;
a control section that controls a driving force of the vehicle so as to coincide the vehicle speed detected in said vehicle speed detecting section to said target vehicle speed;
a releasing section that releases the control of driving force by said control section under a predetermined condition; and
a setting section that sets a vehicle speed delayed to the change instruction by said operating section to a target vehicle speed at the time when the control of driving force by said control section is resumed, when the control of driving force by said control section is released during a changing operation of target vehicle speed.
2. A constant speed running control apparatus for a vehicle according to claim 1, wherein, when the control of driving force by said control section is released during the changing operation of target vehicle speed, said setting section sets a target vehicle speed in just before the changing operation of target vehicle speed to the target vehicle speed at the time when the control of driving force by said control section is resumed.
3. A constant speed running control apparatus for a vehicle according to claim 1, wherein, when the control of driving force by said control section is released during the changing operation of target vehicle speed, said setting section sets an actual vehicle speed at the release time to the target vehicle speed at the time when the control of driving force by said control section is resumed.
4. A constant speed running control apparatus for a vehicle according to claim 1, wherein, when the control of driving force by said control section is released during the changing operation of target vehicle speed, provided that a deviation between the target vehicle speed at the time and an actual vehicle speed is a predetermined value or above, said setting section sets the vehicle speed delayed to the change instruction by said operating section to the target vehicle speed at the time when the control of driving force by said control section is resumed.
5. A constant speed running control apparatus for a vehicle according to claim 1, wherein said setting section sets the vehicle speed delayed to the change instruction by said operating section to the target vehicle speed at the time when the

control of driving force by said control section is resumed, provided that the time where the changing operation of target vehicle speed has been performed continuously is a predetermined time or above.

6. A constant speed running control apparatus for a vehicle according to claim 1, wherein said setting section sets the vehicle speed delayed to the change instruction by said operating section to the target vehicle speed at the time when the control of driving force by said control section is resumed, provided that an increasing operation of target vehicle speed has been performed during up-hill running.

7. A constant speed running control apparatus for a vehicle according to claim 1, wherein said setting section sets the vehicle speed delayed to the change instruction by said operating section to the target vehicle speed at the time when the control of driving force by said control section is resumed, provided that a reducing operation of target vehicle speed has been performed during down-hill running.

8. A constant speed running control apparatus for a vehicle according to claim 1, wherein said releasing section releases the control of driving force by said control section when a brake is operated.

9. A constant speed running control apparatus for a vehicle according to claim 1, wherein said releasing section releases the control of driving force by said control section when an interruption operation of transmission of the driving force to a driving wheel is performed.

10. A constant speed running control apparatus for a vehicle, comprising:
operating means for instructing a change of a target vehicle speed;
vehicle speed detecting means for detecting a vehicle speed;
control means for controlling a driving force of the vehicle so as to coincide the vehicle speed detected by said vehicle speed detecting means to said target vehicle speed;

releasing means for releasing the control of driving force by said control means under a predetermined condition; and

setting means for setting a vehicle speed delayed to the change instruction by said operating means to a target vehicle speed at the time when the control of driving force by said control means is resumed, when the control of driving force by said control means is released during a changing operation of target vehicle speed.

11. A constant speed running control method for a vehicle, comprising the steps

of:

- instructing a change of a target vehicle speed;
- detecting a vehicle speed;
- controlling a driving force of the vehicle so as to coincide said detected vehicle speed to said target vehicle speed;
- releasing the control of driving force for obtaining said target vehicle speed under a predetermined condition; and
- setting a vehicle speed delayed to the target vehicle speed change instruction to a target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed, when the control of driving force for obtaining said target vehicle speed is released during a changing operation of target vehicle speed.

12. A constant speed running control method for a vehicle according to claim 11, wherein said step of setting the target vehicle speed at the time resuming time comprises the steps of:

- storing a target vehicle speed in just before the changing operation of target vehicle speed; and

- when the control of driving force for obtaining said target vehicle speed is released during the changing operation of target vehicle speed, setting the stored target vehicle speed to the target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed.

13. A constant speed running control method for a vehicle according to claim 11, wherein said step of setting the target vehicle speed at the resuming time comprises the steps of:

- when the control of driving force for obtaining said target vehicle speed is released during the changing operation of target vehicle speed, detecting a vehicle speed at the time; and

- setting the detected vehicle speed to the target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed.

14. A constant speed running control method for a vehicle according to claim 11, wherein said step of setting the target vehicle speed at the resuming time comprises the steps of:

- when the control of driving force for obtaining said target vehicle speed is released during the changing operation of target vehicle speed, calculating a deviation between the target vehicle speed at the time and an actual vehicle speed; and

setting the vehicle speed delayed to the target vehicle speed change instruction to the target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed, when said deviation is a predetermined value or above.

15. A constant speed running control method for a vehicle according to claim 11, wherein said step of setting the target vehicle speed at the resuming time comprises the steps of:

measuring the time where the changing operation of target vehicle speed has been performed continuously; and

setting the vehicle speed delayed to the target vehicle speed change instruction to the target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed, when the measured time is a predetermined time or above.

16. A constant speed running control method for a vehicle according to claim 11, wherein said step of setting the target vehicle speed at the resuming time comprises the steps of:

judging whether or not an increasing operation of target vehicle speed has been performed during up-hill running; and

setting the vehicle speed delayed to the target vehicle speed change instruction to the target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed, when the increasing operation of target vehicle speed has been performed during up-hill running.

17. A constant speed running control method for a vehicle according to claim 11, wherein said step of setting the target vehicle speed at the resuming time comprises the steps of:

judging whether or not a reduction operation of target vehicle speed has been performed during down-hill running; and

setting the vehicle speed delayed to the target vehicle speed change instruction to the target vehicle speed at the time when the control of driving force for obtaining said target vehicle speed is resumed, when the reduction operation of target vehicle speed has been performed during down-hill running.

18. A constant speed running control method for a vehicle according to claim 11, wherein said step of releasing the control of driving force for obtaining said target vehicle speed comprises the steps of:

detecting whether or not a braking operation is performed; and

releasing the control of driving force for obtaining said target vehicle speed, when the braking operation is performed.

19. A constant speed running control method for a vehicle according to claim 11, wherein said step of releasing the control of driving force for obtaining said target vehicle speed comprises the steps of:

detecting whether or not an interruption operation of transmission of the driving force to a driving wheel is performed; and

releasing the control of driving force for obtaining said target vehicle speed, when the interruption operation of transmission of the driving force to a driving wheel is performed.